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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,158	06/14/2000	Wataru Uchida	Q59650	8318

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EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/593,158

Applicant(s)

UCHIDA, WATARU

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann in view of Nagata.

Regarding claim 1 Tiedeman teaches a mobile terminal, which notifies a base station of a data transmission rate to be used, when a mobile terminal starts a call and inputting a data transmission rate (see col. 4, lines 14-20 and col. 6, lines 10-17 & 19-22). Tiedemann teaches a communication rate regulating means for regulating a data transmission rate, on the basis of an amount of transmission power (see col. 6, lines 11-17 & 35-40). Tiedemann does not teach detecting a residual amount of battery power. Nagata teaches detecting a residual amount of battery power (see abstract and col. 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann adapt to include detecting a residual amount of battery power because this would allow for transmission power control in a continuous transmission communication system.

Regarding claim 4 Tiedemann teaches a mobile communication system wherein a plurality of data transmission rates are employed (see col. 6, lines 11-15). Tiedemann teaches a base station for controlling data communications in a service area and executing call services (see col. 3, lines 54-60). Tiedemann teaches deciding a transmission data rate of an upward

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signal toward a base station on the basis of base station, on the basis of each transmission power of a downward signal from a base station (see col. 4, lines 1-4 & 6-12 and col. 6, lines 11-17).

Tiedemann does not teach a plurality of mobile terminals for requesting a call service or deciding a transmission rate based on a residual battery power. Nagata teaches a plurality of mobile terminals for requesting a call service and detecting a residual amount of battery power (see abstract, col. 3, lines 45-50 and col. 4, lines 22-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann adapt to include a plurality of mobile terminals for requesting a call service or deciding a transmission rate based on a residual battery power because this would allow for increased reliability in data communications by varying the data transmission rate according to the condition of a wireless signal.

Regarding claim 5 Tiedemann teaches notifying a base station of a data transmission rate to be used by a mobile terminal during transmission (see col. 4, lines 14-18 and col. 6, lines 11-15). Tiedemann teaches detecting the transmission power of a mobile terminal when a data transmission rate is inputted into a mobile terminal (see col. 8, lines 21-30). Tiedemann teaches regulating a data transmission rate, on the basis of a transmission power and notifying a base station of the regulated data transmission rate (see col. 4, lines 14-18 and col. 8, lines 22-30). Tiedemann does not teach detecting a residual amount of battery power of a mobile terminal. Nagata teaches detecting a residual amount of battery power (see abstract and col. 3, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann adapt to include detecting a residual amount of battery power of a mobile terminal because this would allow for increased reliability in data communications

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through notification of the data transmission rate according to the battery supply of a mobile terminal.

Claims 2-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann in view of Nagata and Hayashi.

Regarding claim 2 Tiedemann teaches a transmission power control unit, which receives a downward signal from a base station and controls a transmission power of an upward signal from a base station (see col. 4, lines 1-13). Tiedemann teaches regulating a data transmission rate, on the basis of an amount of transmission power (see col. 6, lines 11-22 & 35-43).

Tiedemann does not teach controlling transmission power depending upon electric field strength of a signal or communication rate regulating on the basis of both a residual amount of battery power and electric field strength. Nagata teaches detecting a residual amount of battery power (see abstract and col. 3, lines 45-50). Hayashi teaches communication rate regulating on the basis of both a residual amount of battery power and electric field strength (see abstract and col. 2, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann adapt to include receiving a downward signal from a base station and controlling transmission power of a upward signal from a base station depending upon an electric field strength of downward signal because this would allow for two-way transmission power control.

Regarding claim 3 Tiedemann teaches calculating an estimated transmission power on the basis of an amount of transmission power (see col. 9, lines 48-55). Tiedemann teaches searching one of a prescribed transmission power holding times which is equal to an estimated holding time in a table, reading out one of a prescribed maximum data transmission rate

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corresponding to a searched transmission power and comparing a read-out maximum data transmission rate (see col. 6, lines 35-43 and col. 9, lines 32-38 & 48-55). Tiedemann teaches notifying a base station of a lower data transmission rate on the basis of a comparison (see col. 9, lines 56-67 & 6-18). Tiedemann does not teach a table for storing battery holding times, or calculating a battery holding time on the basis of a residual amount of battery power and electric field strength. Nagata teaches a table for storing battery-holding times and calculating a battery holding time on the basis of a residual amount of battery power (see col. 4, lines 15-22 and Fig. 4). Hayahsi teaches communication rate regulating on the basis of both a residual amount of battery power and electric field strength (see abstract and col. 2, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann and Nagata adapt to include a table for storing battery holding times, or calculating a battery holding time on the basis of a residual amount of battery power and electric field strength because this would allow for a method for carrying out data communications between mobile terminals while minimizing the consumption amount of electric energy.

Regarding claim 6 Tiedemann receiving a downward signal from a base station and (see col. 4, lines 1-13). Tiedemann teaches regulating a data transmission rate, on the basis of an amount of transmission power (see col. 6, lines 11-22 & 35-43). Tiedemann does not teach generating a signal representing electric field strength of a downward signal or communication rate regulating on the basis of both a residual amount of battery power and electric field strength signal. Nagata teaches detecting a residual amount of battery power (see abstract and col. 3, lines 45-50). Hayahsi teaches communication rate regulating on the basis of both a residual amount of battery power and electric field strength (see abstract and col. 2, lines 1-5). It would

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have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann adapt to include generating a signal representing electric field strength of a downward signal or communication rate regulating on the basis of both a residual amount of battery power and electric field strength signal because this would allow for two-way transmission power control.

Regarding claim 7 Tiedemann teaches calculating an estimated transmission power on the basis of an amount of transmission power (see col. 9, lines 48-55). Tiedemann teaches reading out one of a prescribed maximum data transmission rate corresponding to a searched transmission power and comparing a read-out maximum data transmission rate (see col. 6, lines 35-43 and col. 9, lines 32-38 & 48-55). Tiedemann teaches notifying a base station of a lower data transmission rate on the basis of a comparison (see col. 9, lines 56-67 & 6-18). Tiedemann does not teach a table for storing battery holding times, or calculating a battery holding time on the basis of a residual amount of battery power and electric field strength. Nagata teaches a table for storing battery-holding times and calculating a battery holding time on the basis of a residual amount of battery power (see col. 4, lines 15-22 and Fig. 4). Hayahsi teaches communication rate regulating on the basis of both a residual amount of battery power and electric field strength (see abstract and col. 2, lines 1-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Tiedemann and Nagata adapt to include a table for storing battery holding times, or calculating a battery holding time on the basis of a residual amount of battery power and electric field strength because this would allow for a method for carrying out data communications between mobile terminals while minimizing the consumption amount of electric energy.

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Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Minamisawa U.S. Patent 6,026,303 discloses a method for determining optimal parent terminal and ad hoc network system for the same

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

March 27, 2003



WILLIAM TROST
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